EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	5229	((568/667) or (568/669) or (568/670) or (526/72) or (528/401) or (528/402) or (430/311)).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2006/04/15 12:30
L2	7	norborn$6 and (hexafluoropropanol or trifluoromethyl near2 carbinol)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/15 12:40
L3	0	l1 and l2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/15 12:32
L4	7536	carr.in. or markley.in. or abdourazak. in. or marsella.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/15 12:41
L5	44228	carbocyclic	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/15 12:41
L6	27	l4 and l5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/04/15 12:46

10/784,377

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1204rxw

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	DEC 23	New IPC8 SEARCH, DISPLAY, and SELECT fields in USPATFULL/ USPAT2
NEWS	4	JAN 13	IPC 8 searching in IFIPAT, IFIUDB, and IFICDB
NEWS	5	JAN 13	New IPC 8 SEARCH, DISPLAY, and SELECT enhancements added to INPADOC
NEWS	6	JAN 17	Pre-1988 INPI data added to MARPAT
NEWS	7	JAN 17	IPC 8 in the WPI family of databases including WPIFV
NEWS	8	JAN 30	Saved answer limit increased
NEWS	9	FEB 21	STN AnaVist, Version 1.1, lets you share your STN AnaVist visualization results
NEWS	10	FEB 22	The IPC thesaurus added to additional patent databases on STN
NEWS	11	FEB 22	Updates in EPFULL; IPC 8 enhancements added
NEWS	12	FEB 27	New STN AnaVist pricing effective March 1, 2006
NEWS	13	FEB 28	MEDLINE/LMEDLINE reload improves functionality
NEWS	14	FEB 28	TOXCENTER reloaded with enhancements
NEWS	15	FEB 28	REGISTRY/ZREGISTRY enhanced with more experimental spectral property data
NEWS	16	MAR 01	INSPEC reloaded and enhanced
NEWS	17	MAR 03	Updates in PATDPA; addition of IPC 8 data without attributes
NEWS	18	MAR 08	X.25 communication option no longer available after June 2006
NEWS	19	MAR 22	EMBASE is now updated on a daily basis
NEWS	20	APR 03	New IPC 8 fields and IPC thesaurus added to PATDPAFULL
NEWS	21	APR 03	Bibliographic data updates resume; new IPC 8 fields and IPC thesaurus added in PCTFULL
NEWS	22	APR 04	STN AnaVist $500 visualization usage credit offered
NEWS	23	APR 12	LINSPEC, learning database for INSPEC, reloaded and enhanced
NEWS	24	APR 12	Improved structure highlighting in FQHIT and QHIT display in MARPAT
NEWS	25	APR 12	Derwent World Patents Index to be reloaded and enhanced during second quarter; strategies may be affected

NEWS EXPRESS FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.
V8.0 AND V8.01 USERS CAN OBTAIN THE UPGRADE TO V8.01a AT
http://download.cas.org/express/v8.0-Discover/

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 13:08:37 ON 15 APR 2006

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 13:08:53 ON 15 APR 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 13 APR 2006 HIGHEST RN 880388-58-9
DICTIONARY FILE UPDATES: 13 APR 2006 HIGHEST RN 880388-58-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

****
* *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
* *
****

Structure search iteration limits have been increased. See HELP SLIMITS for details.

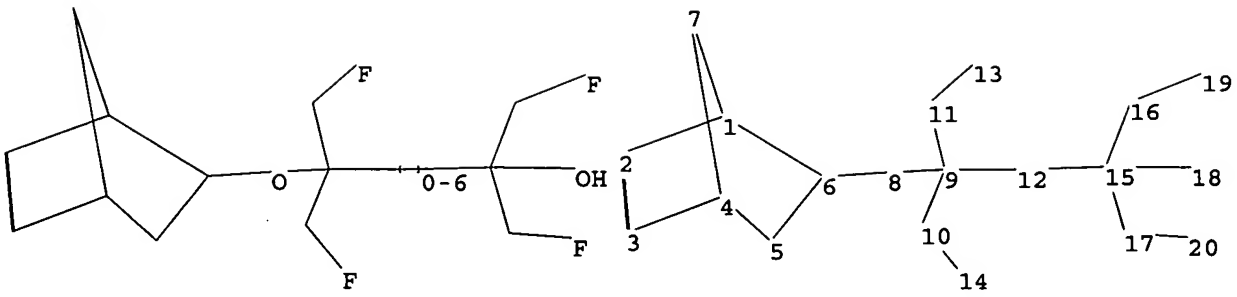
REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=> ....Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end

=>
Uploading C:\Documents and Settings\rkeys\My Documents\STNEXP4\TEMPLATE\STANDARD\10784377.str



chain nodes :
8 9 10 11 12 13 14 15 16 17 18 19 20
ring nodes :
1 2 3 4 5 6 7
chain bonds :
6-8 8-9 9-10 9-11 9-12 10-14 11-13 12-15 15-16 15-17 15-18 16-19 17-20
ring bonds :
1-2 1-6 1-7 2-3 3-4 4-5 4-7 5-6
exact/norm bonds :
6-8 8-9 15-18
exact bonds :
1-2 1-6 1-7 2-3 3-4 4-5 4-7 5-6 9-10 9-11 9-12 10-14 11-13 12-15
15-16 15-17 16-19 17-20
isolated ring systems :
containing 1 :

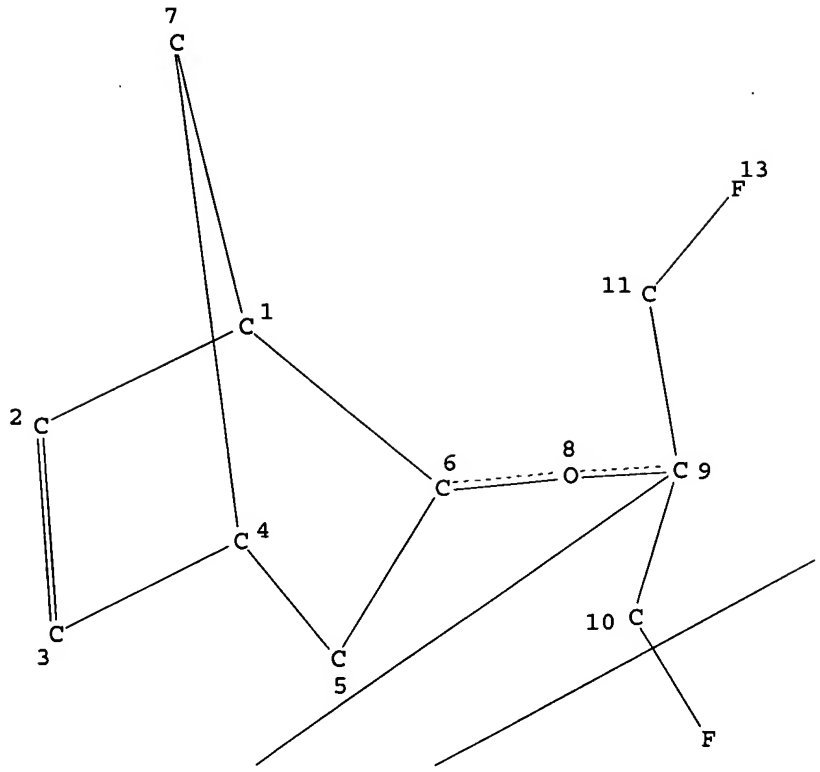
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:CLASS 9:CLASS 10:CLASS
11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS
19:CLASS 20:CLASS

L1 STRUCTURE UPLOADED

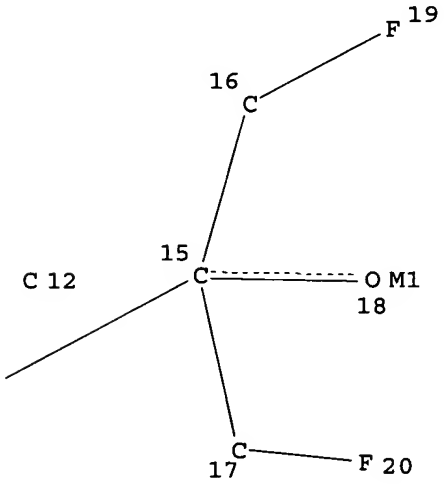
=> que L1

L2 QUE L1

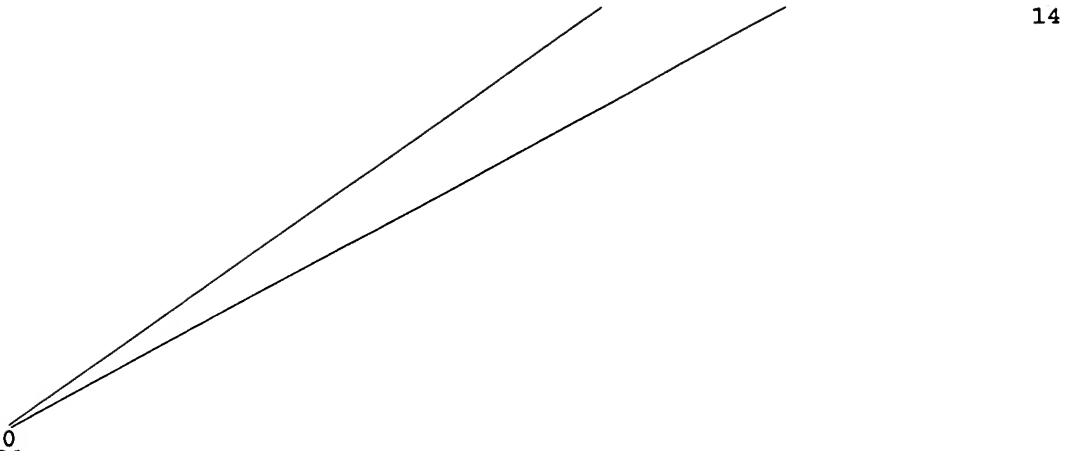
=> d
L2 HAS NO ANSWERS
L1 STR



Page 1-A



Page 1-B



Page 2-A
REP G20=(0-6) 12-9 12-15
NODE ATTRIBUTES:
HCOUNT IS M1 AT 18
NSPEC IS R AT 1
NSPEC IS R AT 2
NSPEC IS R AT 3
NSPEC IS R AT 4
NSPEC IS R AT 5
NSPEC IS R AT 6
NSPEC IS R AT 7
NSPEC IS C AT 8
NSPEC IS C AT 9
NSPEC IS C AT 10
NSPEC IS C AT 11
NSPEC IS C AT 12
NSPEC IS C AT 13
NSPEC IS C AT 14
NSPEC IS C AT 15
NSPEC IS C AT 16
NSPEC IS C AT 17
NSPEC IS C AT 18
NSPEC IS C AT 19
NSPEC IS C AT 20
NSPEC IS C AT 21
DEFAULT MLEVEL IS ATOM
MLEVEL IS CLASS AT 8 9 10 11 12 13 14 15 16 17 18 19 20
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE
L2 QUE L1

=> s l2
SAMPLE SEARCH INITIATED 13:09:19 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 2 TO ITERATE

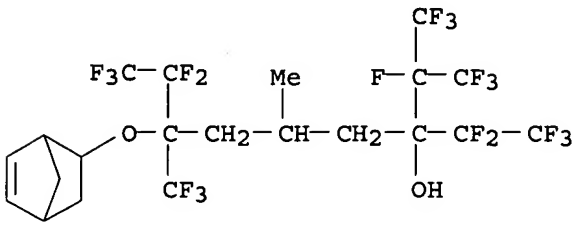
100.0% PROCESSED 2 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 2 TO 124
PROJECTED ANSWERS: 1 TO 80

L3 1 SEA SSS SAM L1

=> d scan

L3 1 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN 3-Nonanol, 7-(bicyclo[2.2.1]hept-5-en-2-yloxy)-1,1,1,2,2,8,8,9,9,9-decafluoro-5-methyl-3-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]-7-(trifluoromethyl)- (9CI)
MF C21 H18 F20 O2



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

=> 0
0 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s l2 ful
FULL SEARCH INITIATED 13:09:58 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 55 TO ITERATE

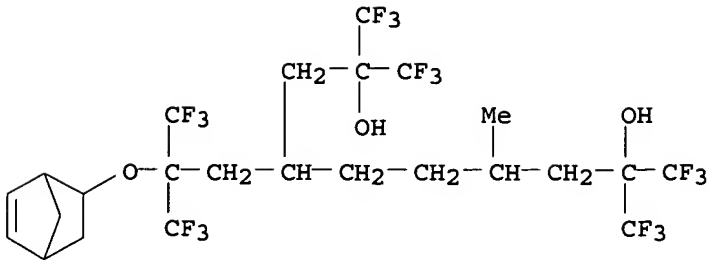
100.0% PROCESSED 55 ITERATIONS 34 ANSWERS
SEARCH TIME: 00.00.01

L4 34 SEA SSS FUL L1

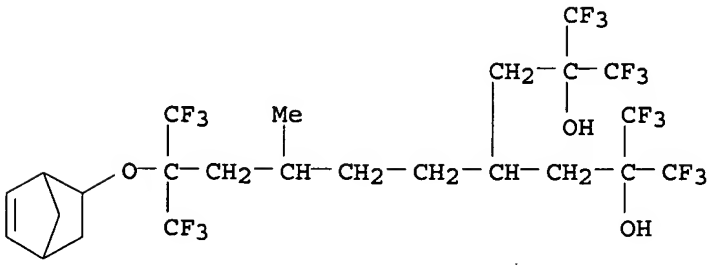
=> d scan

L4 34 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN 2,9-Decanediol, 4-[2-(bicyclo[2.2.1]hept-5-en-2-yloxy)-3,3,3-trifluoro-2-(trifluoromethyl)propyl]-1,1,1,10,10,10-hexafluoro-7-methyl-2,9-bis(trifluoromethyl)-, polymer with 4-[5-(bicyclo[2.2.1]hept-5-en-2-yloxy)-6,6,6-trifluoro-3-methyl-5-(trifluoromethyl)hexyl]-1,1,1,7,7,7-hexafluoro-2,6-bis(trifluoromethyl)-2,6-heptanediol (9CI)
MF (C24 H26 F18 O3 . C24 H26 F18 O3)x
CI PMS

CM 1



CM 2



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	167.38	167.59

FILE 'CAPLUS' ENTERED AT 13:10:19 ON 15 APR 2006
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FILE COVERS 1907 - 15 Apr 2006 VOL 144 ISS 17
FILE LAST UPDATED: 14 Apr 2006 (20060414/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/infopolicy.html

=> s l4
L5 2 L4

=> d 1-2 bib fhitstr

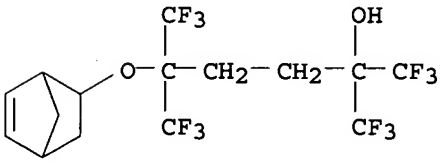
L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:116079 CAPLUS
DN 142:198489
TI Bridged carbocyclic compounds, their preparation, and use in polymerization
IN Van Court, Carr Richard; Markley, Thomas John; Abdourazak, Atteye Houssein; Marsella, John Anthony
PA Air Products and Chemicals, Inc., USA
SO Eur. Pat. Appl., 61 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1505050	A1	20050209	EP 2004-18304	20040802
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
US 2005037289	A1	20050217	US 2004-784377	20040223
SG 108958	A1	20050228	SG 2004-4281	20040728
JP 2005053914	A2	20050303	JP 2004-228514	20040804
PRAI US 2003-492573P	P	20030804		
US 2004-784377	A	20040223		

OS MARPAT 142:198489
IT **838848-01-4P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(bridged carbocyclic compds., their preparation, and use in polymerization)
RN 838848-01-4 CAPLUS
CN 2-Hexanol, 5-(bicyclo[2.2.1]hept-5-en-2-yloxy)-1,1,1,6,6,6-hexafluoro-2,5-bis(trifluoromethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 838847-28-2
CMF C15 H14 F12 O2



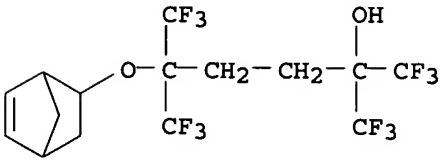
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:491231 CAPLUS
DN 142:490275
TI Novel reactions of quadricyclane. A new route to monomers for low-absorbing polymers in 157 nm photoresists
AU Marsella, John A.; Abdourazak, Atteye H.; Carr, Richard V. C.; Markley, Thomas J.; Robertson III, Eric A.
CS Corporate Science and Technology Center, Air Products and Chemicals, Inc., Allentown, PA, 18195, USA
SO Proceedings of SPIE-The International Society for Optical Engineering (2004), 5376(Pt. 1, Advances in Resist Technology and Processing XXI), 266-275

CODEN: PSISDG; ISSN: 0277-786X
PB SPIE-The International Society for Optical Engineering
DT Journal
LA English
IT **838848-01-4P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and properties of polymerized norbornene ethers obtained by reactions of quadricyclane with fluorinated diols for use in 157 nm photoresist formulations)
RN 838848-01-4 CAPLUS
CN 2-Hexanol, 5-(bicyclo[2.2.1]hept-5-en-2-yloxy)-1,1,1,6,6,6-hexafluoro-2,5-bis(trifluoromethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 838847-28-2
CMF C15 H14 F12 O2



RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> file stnguide

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	8.86	176.45

FILE 'STNGUIDE' ENTERED AT 13:12:28 ON 15 APR 2006
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COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Apr 7, 2006 (20060407/UP).

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	1.14	177.59

FILE 'REGISTRY' ENTERED AT 13:23:48 ON 15 APR 2006
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STRUCTURE FILE UPDATES: 13 APR 2006 HIGHEST RN 880388-58-9
DICTIONARY FILE UPDATES: 13 APR 2006 HIGHEST RN 880388-58-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

```
**********************************************************************
*                                                                    *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,    *
* effective March 20, 2005.  A new display format, IDERL, is now     *
* available and contains the CA role and document type information. *
*                                                                    *
**********************************************************************
```

Structure search iteration limits have been increased. See HELP SLIMITS for details.

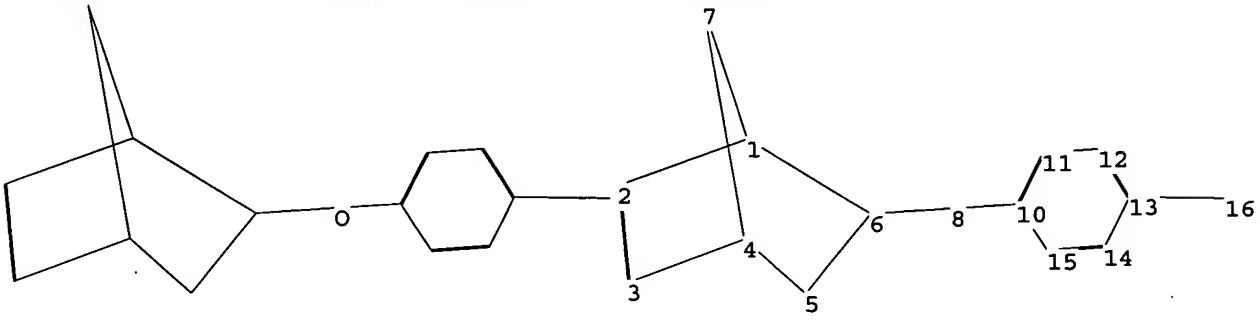
REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=> ....Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end

=>
Uploading C:\Documents and Settings\rkeys\My Documents\STNEXP4\TEMPLATE\STANDARD\10784377a.str



chain nodes :
8 16
ring nodes :
1 2 3 4 5 6 7 10 11 12 13 14 15
chain bonds :
6-8 8-10 13-16
ring bonds :
1-2 1-6 1-7 2-3 3-4 4-5 4-7 5-6 10-11 10-15 11-12 12-13 13-14 14-15
exact/norm bonds :
6-8 8-10
exact bonds :
1-2 1-6 1-7 2-3 3-4 4-5 4-7 5-6 13-16
normalized bonds :
10-11 10-15 11-12 12-13 13-14 14-15
isolated ring systems :
containing 1 : 10 :

Match level :

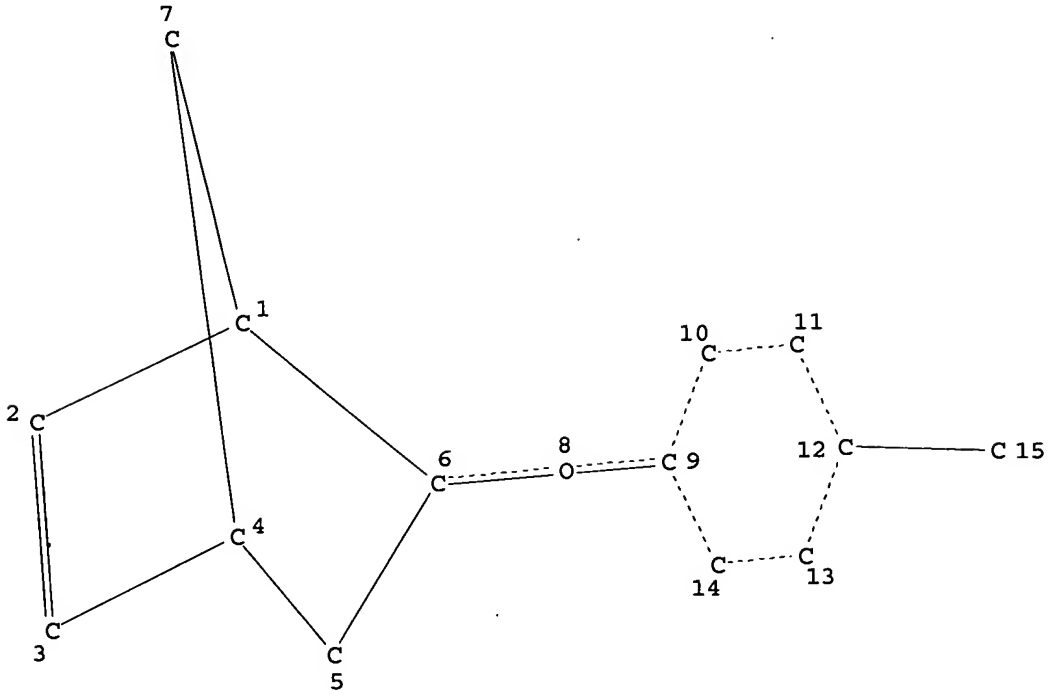
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:CLASS 10:Atom 11:Atom
12:Atom 13:Atom 14:Atom 15:Atom 16:CLASS

L6 STRUCTURE UPLOADED

=> que L6

L7 QUE L6

=> d
L7 HAS NO ANSWERS
L6 STR



NODE ATTRIBUTES:
NSPEC IS R AT 1
NSPEC IS R AT 2
NSPEC IS R AT 3
NSPEC IS R AT 4
NSPEC IS R AT 5
NSPEC IS R AT 6
NSPEC IS R AT 7
NSPEC IS C AT 8
NSPEC IS R AT 9
NSPEC IS R AT 10
NSPEC IS R AT 11
NSPEC IS R AT 12
NSPEC IS R AT 13
NSPEC IS R AT 14
NSPEC IS C AT 15
DEFAULT MLEVEL IS ATOM
MLEVEL IS CLASS AT 8 15
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I
NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE
L7 QUE L6

=> s l7
SAMPLE SEARCH INITIATED 13:24:51 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 90 TO ITERATE

100.0% PROCESSED 90 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.01

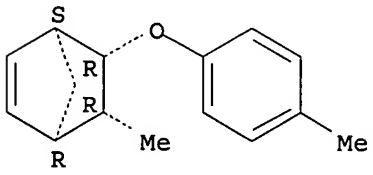
FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1231 TO 2369
PROJECTED ANSWERS: 1 TO 80

L8 1 SEA SSS SAM L6

=> d scan

L8 1 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN Bicyclo[2.2.1]hept-2-ene, 5-methyl-6-(4-methylphenoxy)-,
(1R,4S,5S,6S)-rel- (9CI)
MF C15 H18 O

Relative stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

=> s l7 ful
FULL SEARCH INITIATED 13:25:07 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 2147 TO ITERATE

100.0% PROCESSED 2147 ITERATIONS 12 ANSWERS
SEARCH TIME: 00.00.01

L9 12 SEA SSS FUL L6

=> file caplus
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 167.38 344.97

FILE 'CAPLUS' ENTERED AT 13:25:14 ON 15 APR 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 15 Apr 2006 VOL 144 ISS 17
FILE LAST UPDATED: 14 Apr 2006 (20060414/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/infopolicy.html

=> s l9
L10 7 L9

=> d scan

L10 7 ANSWERS CAPLUS COPYRIGHT 2006 ACS on STN
CC 35 (Noncondensed Aromatic Compounds)
TI Simple vinyl ethers in diene synthesis. I. Reaction of vinyl ethers of phenol, cresols, and halophenols with hexachlorocyclopentadiene
IT 766-94-9, Ether, phenyl vinyl
(derivs., reaction with hexachlorocyclopentadiene)
IT 1126-20-1, Phenol, o-(allyloxy)- 1441-03-8, 2-Norbornene, 1,2,3,4,7,7-hexachloro-5-phenoxy- 1961-52-0, 2-Norbornene, 1,2,3,4,7,7-hexachloro-5-(o-fluorophenoxy)- 4218-87-5, Benzene, o-bis(allyloxy)- 91693-16-2, 2-Norbornene, 1,2,3,4,7,7-hexachloro-5-(2,4,6-trichlorophenoxy)- 91821-64-6, 2-Norbornene, 1,2,3,4,7,7-hexachloro-5-(2,4-dichlorophenoxy)- 91822-39-8, 2-Norbornene, 1,2,3,4,7,7-hexachloro-5-(o-chlorophenoxy)- 91822-40-1, 2-Norbornene, 1,2,3,4,7,7-hexachloro-5-(p-chlorophenoxy)- 92153-59-8, 2-Norbornene, 1,2,3,4,7,7-hexachloro-5-(o-tolyloxy)- **92153-60-1**, 2-Norbornene, 1,2,3,4,7,7-hexachloro-5-(p-tolyloxy)- 92960-93-5, 2-Norbornene, 5-(p-bromophenoxy)-1,2,3,4,7,7-hexachloro- 93534-35-1, 2-Norbornene, 1,2,3,4,7,7-hexachloro-5-(m-tolyloxy)- 97176-63-1, Triethylamine, 2-(2,6-dimethoxyphenoxy)- 97176-64-2, Triethylamine, 2-(2,6-dimethoxyphenoxy)-, hydrochloride
(preparation of)
IT 766-94-9, Ether, phenyl vinyl
(reaction with hexachlorocyclopentadiene)
IT 77-47-4, Cyclopentadiene, hexachloro-
(reactions of, with Ph vinyl ether and derivs.)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> photoresist and l10
PHOTORESIST IS NOT A RECOGNIZED COMMAND
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For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s photoresist and l10
42482 PHOTORESIST
L11 0 PHOTORESIST AND L10

```
=> d his

     (FILE 'HOME' ENTERED AT 13:08:37 ON 15 APR 2006)

     FILE 'REGISTRY' ENTERED AT 13:08:53 ON 15 APR 2006
L1             STRUCTURE UPLOADED
L2             QUE L1
L3           1 S L2
L4          34 S L2 FUL

     FILE 'CAPLUS' ENTERED AT 13:10:19 ON 15 APR 2006
L5           2 S L4

     FILE 'STNGUIDE' ENTERED AT 13:12:28 ON 15 APR 2006

     FILE 'REGISTRY' ENTERED AT 13:23:48 ON 15 APR 2006
L6             STRUCTURE UPLOADED
L7             QUE L6
L8           1 S L7
L9          12 S L7 FUL

     FILE 'CAPLUS' ENTERED AT 13:25:14 ON 15 APR 2006
L10          7 S L9
L11          0 S PHOTORESIST AND L10

=> d l10 1-7 ti

L10  ANSWER 1 OF 7  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   A two step, non-stereospecific cation radical Diels-Alder reaction

L10  ANSWER 2 OF 7  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Stereospecificity and Mechanism in Cation Radical Diels-Alder and
     Cyclobutanation Reactions

L10  ANSWER 3 OF 7  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   7,7-Dimethoxytetrachloronorbornenol ethers

L10  ANSWER 4 OF 7  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Vinyl ethers in diene synthesis.  III.  Synthesis of adducts of
     cyclopentadiene and hexachlorocyclopentadiene with vinyl ethers of phenols

L10  ANSWER 5 OF 7  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Simple vinyl ethers in diene synthesis. I. Reaction of vinyl ethers of
     phenol, cresols, and halophenols with hexachlorocyclopentadiene

L10  ANSWER 6 OF 7  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Vinyl compounds in Diels-Alder synthesis. III. Synthesis and properties of
     ethers of bicycloheptene series and di(endomethylene)octahydronaphthalene
     containing aromatic radicals

L10  ANSWER 7 OF 7  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Vinyl compounds in Diels-Alder reaction. Stereospecific orientation of
     Diels-Alder reaction of vinyl aryl ethers with cyclopentadiene as related
     to temperature


=> file caplus
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10/784,377

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FILE COVERS 1907 - 15 Apr 2006 VOL 144 ISS 17
FILE LAST UPDATED: 14 Apr 2006 (20060414/ED)

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=> s norbon? and (hexfluoropropanol or trifluoromethyl carbinol)
           120 NORBON?
             1 HEXFLUOROPROPANOL
         36938 TRIFLUOROMETHYL
          8663 CARBINOL
            31 TRIFLUOROMETHYL CARBINOL
                 (TRIFLUOROMETHYL(W)CARBINOL)
L12          0 NORBON? AND (HEXFLUOROPROPANOL OR TRIFLUOROMETHYL CARBINOL)

=> s norborn? and (hexfluoropropanol or trifluoromethyl carbinol)
         27927 NORBORN?
             1 HEXFLUOROPROPANOL
         36938 TRIFLUOROMETHYL
          8663 CARBINOL
            31 TRIFLUOROMETHYL CARBINOL
                 (TRIFLUOROMETHYL(W)CARBINOL)
L13          3 NORBORN? AND (HEXFLUOROPROPANOL OR TRIFLUOROMETHYL CARBINOL)

=> d 1-3 ti

L13  ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Equilibrium water uptake and diffusion behavior in model polynorbornene
     photoresist polymers

L13  ANSWER 2 OF 3  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Effect of nanoscale confinement on the diffusion behavior of photoresist
     polymer thin films

L13  ANSWER 3 OF 3  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Dissolution behavior of bis-trifluoromethyl-carbinol
     -substituted polynorbornenes


=> d 1-3 bib ab

L13  ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2006 ACS on STN
AN   2005:592339  CAPLUS
TI   Equilibrium water uptake and diffusion behavior in model polynorbornene
     photoresist polymers
AU   Hoskins, Trevor; Roman, Paul J.; Ludovice, Peter J.; Henderson, Clifford
     L.
```

CS Georgia Institute of Technology, School of Chemical & Biomolecular Engineering, Atlanta, GA, 30332-0100, USA
SO Proceedings of SPIE-The International Society for Optical Engineering (2005), 5753(Pt. 2, Advances in Resist Technology and Processing XXII), 851-861
CODEN: PSISDG; ISSN: 0277-786X
PB SPIE-The International Society for Optical Engineering
DT Journal
LA English
AB As 193 nm immersion lithog. continues to evolve, the need to understand the effect of the immersing liquid on the resulting photoresist properties continues to grow. With this in mind, the sorption of water (using both liquid and vapor environments) in two model photoresist polymer resins based on functionalized poly **norbornene**) was examined using quartz crystal microbalance techniques. Similar to the results presented by Berger and coworkers, it was found that the water uptake in bis-**trifluoromethyl carbinol** substituted polynorbornene (HFAPNB) increases as the polymer mol. weight increases, while the diffusion coefficient of water in these materials remains relatively constant over the same range in mol. weight In contrast, trifluorosulfonamide-substituted polynorbornene displays a relatively constant level of water uptake as a function of polymer mol. weight, while the diffusion coefficient decreases by more than an order of magnitude over the same mol. weight range. Sorption expts. performed as a function of temperature have shown that the water diffusion in these polynorbornene polymers can be described using an Arrhenius relationship. The activation energy of water diffusion was compared in both HFAPNB and poly(hydroxystyrene). The activation energy for diffusion of water in HFAPNB is substantially larger than in the case of poly(hydroxystyrene). This is consistent with the view that polynorbornenes possess relatively stiff and rigid backbones as compared to more flexible polymers such as poly(hydroxystyrene). The activation energy for water diffusion in HFAPNB was found to be a strong function of polymer mol. weight, with the activation energy decreasing with increasing mol. weight
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:491242 CAPLUS
DN 142:454199
TI Effect of nanoscale confinement on the diffusion behavior of photoresist polymer thin films
AU Singh, Lovejeet; Ludovice, Peter J.; Henderson, Clifford L.
CS School of Chemical & Biomolecular Engineering, Georgia Institute of Technology, Atlanta, GA, 30332-0100, USA
SO Proceedings of SPIE-The International Society for Optical Engineering (2004), 5376(Pt. 1, Advances in Resist Technology and Processing XXI), 369-378
CODEN: PSISDG; ISSN: 0277-786X
PB SPIE-The International Society for Optical Engineering
DT Journal
LA English
AB The influence of film thickness and mol. weight on the diffusion coeffs. of water, benzene, and trifluoroacetic acid in two photoresist polymers, poly(p-hydroxystyrene) and bis-**trifluoromethyl carbinol** substituted poly(**norbornene**), has been studied using quartz crystal microbalance (QCM) methods. Diffusion coeffs. for films as thin as approx. 50 nm were determined It was observed that the diffusion coefficient was a strong function of film thickness, and that the diffusion coefficient decreases drastically as film thickness is reduced below a critical value. This critical

thickness value is found to be a function of both polymer structure and mol. weight In addition, the effect of film thickness on the equilibrium uptake of the various penetrants was also determined In particular, the equilibrium water uptake was shown to depend strongly on film thickness, polymer structure, and polymer mol. weight
RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:570067 CAPLUS
DN 140:347337
TI Dissolution behavior of bis-**trifluoromethyl-carbinol** -substituted polynorbornenes
AU Hoskins, Trevor; Chung, Won Jae; Ludovice, Peter J.; Henderson, Clifford L.; Seger, Larry; Rhodes, Larry F.; Shick, Robert A.
CS Georgia Institute of Technology, Atlanta, GA, 30332-0100, USA
SO Proceedings of SPIE-The International Society for Optical Engineering (2003), 5039(Pt. 1, Advances in Resist Technology and Processing XX), 600-611
CODEN: PSISDG; ISSN: 0277-786X
PB SPIE-The International Society for Optical Engineering
DT Journal
LA English
AB As features shrink below 100 nm, new exposure technologies such as 157 nm lithog. are being developed. One of the critical challenges in developing these new lithog. tools and processes is the development of appropriate resist materials that can be used at these lower exposure wavelengths. Creating organic resist polymer resins for 157 nm exposure is a particularly challenging issue since many organic functional groups absorb at this wavelength. It has been previously shown that fluorinated polymers may offer the required low optical absorbance needed to serve as resist resins for 157 nm lithog. In particular, there has been interest in bis-**trifluoromethyl carbinol** substituted polynorbornenes (HFAPNB) and similar materials for use in photoresists. The bis-**trifluoromethyl carbinol** group offers a base soluble group that is sufficiently transparent to be used at 157 nm. This work has focused on the dissoln. behavior and other characteristics of bis-**trifluoromethyl carbinol** substituted polynorbornenes. In particular, it was found that the dissoln. behavior of the HFAPNB homopolymer is strongly controlled by its ability to hydrogen bond with both neighboring chains and also other small mol. additives such as dissoln. inhibitors and photoacid generators. A detailed mol. level explanation for these effects is presented. The interaction of a series of com. photoacid generators with HFAPNB polymers are presented. The use of such information for the rational design of advanced resist materials using these polymers will be discussed.
RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
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=> log y

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